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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,246	11/30/2001	Richard Brussel	017399-0200	3742
22428	7590	12/09/2003	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			DEL SOLE, JOSEPH S	
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 12/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

009

Office Action Summary	Application No. 09/997,246	Applicant(s) BRUSSEL, RICHARD	
	Examiner Joseph S. Del Sole	Art Unit 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11, 14-21 and 23 is/are rejected.
- 7) ☒ Claim(s) 12, 13 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5/20/02 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 1-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** the indication of traverse in the response of 9/29/03.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

3. The abstract of the disclosure is objected to because **a)** the abstract currently summarizes both the method and the apparatus, however the method claims have been withdrawn. Should the method claims be cancelled, correction is required. See MPEP § 608.01(b). The Examiner also suggests changing the title of the invention to refer only to the apparatus.
4. The disclosure is objected to because of the following informalities: **a)** at line 15 of page 7 (this is also labeled as paragraph [0031]) "an feed-slot" is grammatically incorrect and must be changed to --a feed-slot--; **b)** at line 21 of page 12 (this is part of paragraph [0044]), the US Patent Application number (either serial or Patent number, where appropriate) must be updated, thereby replacing the blank.

Appropriate correction is required.

Claim Objections

5. Claim 11 is objected to because of the following informalities: **a)** "hosing" in line 8 of claim 11 must be changed to --housing--. Appropriate correction is required.

6. Claims 19 and 23 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 19 fails to positively recite a structural limitation; the limitation "the temperature of the feed-slot jaw can be reduced below the tackiness temperature of the endless fiber fleece or fiber mat" is a process limitation drawn to an intended use of the claimed apparatus that does not further limit the structure of claim 16 (namely, the temperature of the jaw can be reduced by a structure separate from the claimed apparatus). Claim 23 fails to positively recite a structural limitation; the limitation "the endless fiber fleece or fiber mat running to the plasticizing extruder is heated" is a process limitation drawn to an intended use of the claimed apparatus that does not further limit the structure of claim 11 (namely, running heated fiber to the apparatus).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 11, 14 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Therolf (US6,238,733 B1).

Therolf teaches an apparatus (the limitation "for the manufacture of fiber-reinforced plastic compositions" is a process limitation that does not further limit the apparatus), having a plastic fusion extruder (Fig 2, #s 19, 29 and 30, section "o" and col 3, lines 29-30 and 45-46); a plasticizing extruder (Fig 2, sections "m" and "n") including a housing (Fig 2, #25, #26, #31 and the structure between #8 and #26) with two bores of varying diameter (Figs 1 and 2, the first bore is #s 2 and 2' and the second bore is #s 3 and 3' and col 5, line 66 - col 6, line 12) and two extruder shafts driven in rotation (Fig 2, #s 5 and 5' being the first shaft and the second shaft is #s 4 and 4') one of the extruder shafts begin a feed shaft (Fig 1, rightmost shaft #5 on axis #7), a discharge and transport section in the housing (Fig 2, section "n"), a feed and impregnation section in the housing (Fig 1, section "m"), including a slot-like infeed opening (Fig 1, #18) provided in the housing above the feed shaft (the limitation "for the introduction of endless fiber fleeces or fiber mats into at least one of the bores" is a process limitation that does not further limit the apparatus), wherein the infeed opening has length (Figs 1

and 2; the limitation "of approximately the width of the fiber fleece or fiber mat" is a process limitation that does not further limit the apparatus) and is parallel to the extruder shafts and is approximately tangential to one of the extruder shafts (Figs 1 and 2), and wherein the bores have wrap-arounds enlarged with respect to a diameter of the bores in the discharge and transport section (Fig 2, as discussed above the bores represented by #s 2 and 3 in section "m" which wrap-around the shafts are enlarged with respect to the bores represented by #s 2' and 3'), a discharge nozzle (Figs 1 and 2, #s 12 and 13) placed over the infeed opening; wherein past the infeed opening is a rounded entry wall (Fig 1, #3 is a rounded bore; the limitation "endless fiber fleece or fiber mat is guided" is a process limitation drawn to the intended use of the apparatus and does not further limit the apparatus). As stated above, the limitation "wherein the endless fiber fleece or fiber mat running to the plasticizing extruder is heated" is a process limitation that does not further limit the apparatus.

Therolf fails to teach the specific enlargement of the bores being 2-20 mm.

Regarding claim 11, the specific enlargement of 2-20 mm would be readily determined by routine experimentation for the purpose of producing the optimum results. In re Boesch and Slaney, 205 USPQ 215 (CCPA 1980). Furthermore, Therolf does teach that the diameter of the bore in section "m", "D", has only to be at least twice the thickness of the strand (col 4, lines 10-20) and teaches that the diameter of the bore in section "n", "d", has to be smaller than the diameter "D" for the purpose of cutting the impregnated strands.

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of Therolf with the difference in diameter (D - d) between the bore of the discharge and transport section and the bore of the feed and impregnation section being 2-20 mm because Therolf teaches differences in diameter to first accommodate a strand then cut the impregnated strand and the specific enlargement would be determined by routine experimentation in order to cut the impregnated strand as desired.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 11 and 14-21 and 23 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9, 10 and 15-20 of copending Application No. 09/997,253 (and published as PGPublication 20020089082) in view of Therolf (6,238,733).

Claims 9, 10, and 15-20 of PGPublication 200208902 teach the limitations of Applicant's above claims including an apparatus (the limitation "for the manufacture of

fiber-reinforced plastic compositions" is a process limitation that does not further limit the apparatus), having a plastic fusion extruder (claim 9, lines 13-14); a plasticizing extruder (claim 9, lines 3-11) including a housing (col 9, line 4) with two bores of varying diameter (claim 9, line 4 and lines 10-11) and two extruder shafts driven in rotation (claim 9, line 4) one of the extruder shafts begin a feed shaft (claim 9, lines 5-6), a discharge and transport section in the housing (claim 9, lines 9-11, the portion of the bore which is reduced to the screw diameter is the discharge and transport section), a feed and impregnation section in the housing (claim 9, lines 7-8), including a slot-like infeed opening (claim 9, line 7-8) provided in the housing above the feed shaft (the limitation "for the introduction of endless fiber fleeces or fiber mats into at least one of the bores" is a process limitation that does not further limit the apparatus), wherein the infeed opening has length (claim 9, line 7; the limitation "of approximately the width of the fiber fleece or fiber mat" is a process limitation that does not further limit the apparatus) and is parallel to the extruder shafts and is approximately tangential to one of the extruder shafts (claim 9, lines 7-9; a slot like feed opening has at least two dimensions and one must parallel and approximately tangential), and wherein the bores have wrap-arounds enlarged with by 2-20 mm with respect to a diameter of the bores in the discharge and transport section (claim 9, lines 9-11 and claim 10, lines 1-2); the plasticizing extruder has a diameter reduction downstream from the infeed opening that terminates in a spiral in the direction of rotation (claim 16, line 2); a moveable feed-slot jaw is disposed on the infeed opening (claim 15, lines 1-2); an oscillating drive is disposed with the feed-slot jaw (claim 18, lines 1-2); the feed-slot jaw is thermally

insulated from the housing (claim 17, lines 1-2); the temperature of the feed-slot jaw can be reduced below the tackiness temperature of the endless fiber fleece or fiber mat (claim 19, lines 1-2; as stated above this limitation does not further limit the parent claim); strippers are provided in the infeed opening (claim 9, line 12); the strippers are exchangeable (claim 20, lines 1-2; as taught in the specification of PGPublication 20020089082, the Examiner interprets "scrapers" as terminology interchangeable with "strippers"). As stated above, the limitation "wherein the endless fiber fleece or fiber mat running to the plasticizing extruder is heated" is a process limitation that does not further limit the apparatus.

PGPublication 200208902 fails to teach a discharge nozzle placed over the infeed opening and the infeed opening being a rounded entry wall (the limitation "endless fiber fleece or fiber mat is guided" is a process limitation drawn to the intended use of the apparatus and does not further limit the apparatus).

Therolf teaches a discharge nozzle (Figs 1 and 2, #s 12 and 13) placed over the infeed opening and teaches a rounded entry wall past the infeed opening (Fig 1, #3 is a rounded bore; the limitation "endless fiber fleece or fiber mat is guided" is a process limitation drawn to the intended use of the apparatus and does not further limit the apparatus) for the purpose of delivering a strand to the feed opening; coating the strand with polymer and guiding it to the extruder shafts (col 3, lines 20-50).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of claims 9, 10 and 15-20 of PGPublication 200208902 with a discharge nozzle placed over the infeed opening and

a rounded entry wall past the infeed opening as taught by Therolf because it enables the strand to be coated before being fed to the opening and further guided to the extruder shafts.

This is a provisional obviousness-type double patenting rejection.

References of Interest

12. Ruger (6,106,266) and Wenger et al (4,875,847) are cited of interest to show the state of the art.

Allowable Subject Matter

13. Claims 12-13 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or suggest any of **a)** strippers arranged on the feed shaft (or on both shafts); or **b)** the distance between the strippers in the infeed opening and the shafts being smaller than the distance between the enlarged housing bores and the shafts, in combination with the limitations of the parent claim.

Correspondence

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joseph S. Del Sole whose telephone number is (703) 308-6295 (after 12/8/03 the Mr. Del Sole's new number is (571)272-1130). The examiner can normally be reached on Monday through Friday from 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Wanda Walker, can be reached at (703) 308-0457 (after 12/8/03 Ms. Walker's new number is (571)272-1151). The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for both non-after finals and for after finals.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Joseph S. Zell Self

J.S.D.

December 1, 2003